

A GLOSSARY OF TERMS USED IN RADIATION PROTECTION

Absorbed dose	Physical quantity defined as the energy transferred per unit mass to a body by ionising radiation. Has the units of Grays (Joules/Kg).
Accelerator	Defined by IRR17 as apparatus in which particles are accelerated and from which ionising radiation with an energy higher than 1 MeV is emitted.
ACoP	Approved Code of Practice
ADR	The European Agreement concerning the International Carriage of Dangerous Goods by Road (2019). This is EU legislation that is referred to by CDG.
ALI	Annual Limit on Intake. The intake of a radionuclide (in Becquerels) which is associated with a committed effective dose limit of 20 mSv (the statutory dose limit).
ADS	Approved Dosimetry Service. A provider of personal dosimetry and/or dose record keeping services that has been approved for these purposes by HSE.
Becquerel	The S.I. Unit of activity corresponding to one disintegration per second. Multiples kBq, MBq, GBq, etc. Other unit used in USA and previously in UK: 1 Curie = 37 GBq.
Best Available Technique (BAT)	The level of management and engineering control that minimises, as far as reasonably practical, the release of radioactivity to the environment. This taking into account cost effectiveness, technological developments, operational safety and social/economic factors.
Carrier	Any individual or organisation undertaking the transport of radioactive material by road.
CDG Regulations	The Carriage of Dangerous Goods and use of Transportable Pressure Equipment Regulations 2009. Regulations (<i>As Amended</i>) applying, amongst other things, to the transport of radioactive substances by road in the UK. The bulk of the detail is in ADR which is referenced by CDG.
Classified person	A person designated in accordance with Regulation 21 of IRR17.
Committed dose	The concept used to relate to the dose received after an intake of a radionuclide for the purpose of comparison with the statutory annual dose limits. This accounts for the fact that for radionuclides that have long physical half lives and which are retained for long periods in the body the absorbed dose (energy deposited) is received over a number of years and not in a single year.
Consignee	Any individual or organisation to whom radioactive material is dispatched, and who is named in the transport document.
Consignment note	A document that travels with a package of radioactive material in transit by road, air, or sea. Previously called "Transport Document".

Consignor	Any individual or organisation who presents a consignment for transport, and who is named in the transport document.
Contamination	Dispersed radioactive material including spills of radioactive liquids on benches, airborne radionuclides (including mists and dusts) and activity released from a damaged sealed radioactive source.
Controlled area	An area designated in accordance with Regulation 17 of IRR17
DGSA	Dangerous Goods Safety Adviser – advises on application of transport regulations (see CDG Regulations)
Dose coefficient	The estimated committed dose per unit intake for a given radionuclide and pathway (e.g. ingestion, inhalation). Published by ICRP and others and determined using element and chemical form specific biokinetic models. (Units are Sv Bq ⁻¹).
Dose constraint	A prospective target on the maximum individual dose associated with work with ionising radiations. Not the same as a statutory dose limit or a retrospective investigation level.
Driver	The individual who drives the vehicle transporting the radioactive material.
EA	Environment Agency, who administer and enforce the Environmental Permitting Regulations 2016 (EPR16).
Effective dose	Loosely "whole body dose". The dose summed over all exposed organs and tissues of the body, weighted for the relative biological harm associated with different types of radiation (alpha, beta, gamma, x-ray) as well as the different radio-sensitivities of different tissues and organs. Effective dose relates to the risk of stochastic effects, principally cancer induction and has the units of Sieverts. The current statutory dose limit on effective dose for an adult worker is 20 mSv.
EPR 2016	The Environmental Permitting Regulations 2016.
Equivalent dose	The dose to an individual organ or tissue or the extremities weighted for the relative harm associated with different types of radiation (alpha, beta, gamma, x-ray). Associated with separate (higher) dose limits than effective dose. Has the units of Sieverts.
External radiation	Exposure of persons from radiations originating from outside the body, e.g. x-ray beams, gamma ray sources, beta sources, neutron sources.
HSE	Health and Safety Executive who enforce IRR17.
ICRP	International Commission on Radiological Protection.
Internal radiation	Exposure of persons consequent on intakes of radionuclides which may occur by a range of pathways including inhalation and ingestion.
IR(ME)R 2017	The Ionising Radiation (Medical Exposure) Regulations 2017
IRR 2017	The Ionising Radiations Regulations 2017, which came into force on 1 st January 2018, replacing the 1999 regulations.

L121	The HSE publication which includes the regulations, ACoP and guidance for IRR17.
Local rules	Written radiation safety instructions – as defined and required by Regulation 18 of IRR17.
Outside Worker	A radiation worker (classified or non-classified) who works in another employer's controlled or supervised area.
Radiation generator	An electrical device designed to produce ionising radiations - most obviously an x-ray tube but also cyclotrons and some other special apparatus. Normal cathode ray tubes in VDUs, etc. present no radiation risk and fall outside of IRR17.
REPIR	The Radiation (Emergency Preparedness and Public Information Regulations) 2019.
RPA	Radiation Protection Adviser appointed under Regulation 14 of IRR17
RPS	Radiation Protection Supervisor appointed under Regulation 18 of IRR17
Sealed Source	A radioactive source containing any radioactive substance whose structure is such as to prevent, under normal conditions of use, any dispersion of radioactive material into the environment.
Sievert	SI unit of radiation dose. Quantifies the amount of radiation exposure of a person and is related to the risk of harm to the individual. More commonly encountered as sub-units, i.e. microSievert and milliSievert.
Stock pot	Term used by some users to describe the vial containing a solution of a radioactive labelled compound, together with the outer (sometimes lead shielded) container provided by the supplier/manufacturer of the compound.
TLD dosimeter	Thermoluminescent dosimeter. A type of personal dosimeter used both as a whole body dosimeter, and as an extremity (e.g. finger) dosimeter.
Transport document	A document that travels with a package of radioactive material in transit by road, air, or sea. Sometimes called a "consignment note".
Transport index (TI)	A value to be recorded on labels and documentation accompanying some packages containing higher amounts of radioactive materials that are moved by road, air, sea, etc. The T.I. is the dose rate at 1 metre in air, in mSv/hr x 100, or the dose rate at 1 metre in air, in microsievert/hour divided by 10.
UK Health Security Agency (UKHSA)	Currently carries out the functions of the former Public Health England / Health Protection Agency / National Radiological Protection Board, which was set up under the UK Radiological Protection Act of 1970.
Unsealed source	Any radioactive source that doesn't meet the requirement of a sealed source.